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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,526	12/29/2003	Andrew Berlin	INTEL1170(P15621)	8526

28213 7590 12/15/2005

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EXAMINER

LARKIN, DANIEL SEAN

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/748,526	BERLIN ET AL.	
	Examiner	Art Unit	
	Daniel S. Larkin	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 5-11, 16-19 and 25-29 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 33-37 is/are allowed.
- 6) ☐ Claim(s) 1-4, 12-15, 20-24, and 30-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 20-24 and 30-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 20, claim line 1: The preamble make reference to a method of "identifying molecules"; however, the body of the claim does ^{not} provide a connection De between scanning the nanocodes and identifying the molecules. Scanning a structure does not necessarily lead to identification. Alternatively, scanning can be used to generate characteristics or properties of the molecules.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-3, 12-15 are rejected under 35 U.S.C. 102(a) as being anticipated by US 2003/0033863 (Ashby et al.).

With respect to the limitations of claim 1, the reference to Ashby et al. discloses an atomic force microscope for use in screening potential interactions between

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biological molecules comprised of an array of scanning probe tips, as shown in Figure 8; and an analyzer coupled to the scanning array. As to the limitation of providing an array that is "capable of scanning nanocodes", the examiner argues that given the device of Ashby et al. is an atomic force microscope that is used to measure on the atomic level, the array of Ashby et al. would inherently have the capability of measuring nanocodes, as it does with measuring small molecules and proteins, among the many other uses available to an atomic force microscope.

With respect to the limitation of claim 2, the reference to Ashby et al. would again have the inherently capability of measuring friction characteristics.

With respect to the limitations of claim 3, the reference to Ashby et al. discloses an atomic force microscope comprised of an array of two or more scanning probe tips, as shown in Figure 8.

With respect to the limitation of claim 12, the reference to Ashby et al. would again have the inherently capability of measuring DNA molecules.

With respect to the limitation of claim 13, the reference to Ashby et al. appears to discloses means for holding a sample (20).

With respect to the limitation of claim 14, since the reference to Ashby et al. would have the inherent capability of scanning nanocodes, the array would also have the inherent capability of measuring molecular assay labels.

With respect to the limitations of claim 15, the reference to Ashby et al. discloses an atomic force microscope for use in screening potential interactions between biological molecules comprising: means to support a substrate (20); an array of

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scanning probe tips, as shown in Figure 8; and an analyzer coupled to the scanning array. As to the limitation of providing an array that is "capable of scanning nanocodes", the examiner argues that given the device of Ashby et al. is an atomic force microscope that is used to measure on the atomic level, the array of Ashby et al. would inherently have the capability of measuring nanocodes, as it does with measuring small molecules and proteins, among the many other uses available to an atomic force microscope.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0033863 (Ashby et al.) in view of US 5,047,633 (Finlan et al.).

With respect to the limitation of claim 4, the reference to Ashby et al. fails to expressly recite that the scanning array is a three by three array. The reference to Finlan et al. discloses an apparatus for imaging macromolecules and interactions involving macromolecules, whereby an array of probes (13) is utilized to perform the imaging. One example, as shown in Figure 4, shows a four by four array of scanning probes. It is the examiner's position that one of ordinary skill in the art would have the requisite ability to create a scanning array as large or as small as the operator

wishes in order to take advantage of the number of sample needed to be scanned, as well as to more quickly scan a plurality of samples.

Allowable Subject Matter

7. Claims 20-24 and 30-32 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

8. Generic claim 33 is allowable. Since claims 34-37 are depended from an allowable generic claim, the restriction requirement with regards to claims 34-37 has been withdrawn. Claims 33-37 are now deemed to be allowable.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Larkin whose telephone number is 571-272-2198. The examiner can normally be reached on 8:00 AM - 5:00 PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Larkin
AU 2856
12 December 2005



DANIEL S. LARKIN
PRIMARY EXAMINER